

Remarks:

1. Claims 10, 15-21, and 25-29 are again rejected under 35 U.S.C. 102(e) as being anticipated by Sudani (US 6,619,616).

From the MPEP 2112:

IV. EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE TENDING TO SHOW INHERENCY

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) (The claims were drawn to a disposable diaper having three fastening elements. The reference disclosed two fastening elements that could perform the same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.). >Also, "[a]n invitation to investigate is not an inherent disclosure" where a prior art reference "discloses no more than a broad genus of potential applications of its discoveries." *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1367, 71 USPQ2d 1081, 1091 (Fed. Cir. 2004) (explaining that "[a] prior art reference that discloses a genus still does not inherently disclose all species within that broad category" but must be examined to see if a disclosure of the claimed species has been made or whether the prior art reference merely invites further experimentation to find the species).

- a. Regarding claim 10, the Examiner asserts that Sudani teaches all of the limitations of applicant's claim 10. Applicants respectfully point out that nowhere in Sudani does it teach "the rod being disposed in the valve housing when in a de-energized configuration to permit the rod, when moving toward an energized configuration, to pre-travel a distance before contacting the ball that is sufficient to reduce a response time of the valve compared to a response time when the rod contacts or is very near to the ball in the de-energized configuration" as is claimed in applicant's claim 10. Neither Sudani, nor any of the other cited references teach or disclose purposely designing a pre-travel distance between the ball and the rod appropriate for the purpose of reducing response time of the valve. Sudani merely indicates that the rod should not be in contact with the ball in the de-energized position. This could easily mean a gap of 1 angstrom, which would have no appreciable affect on response time. It could also mean a gap so large that the response time would be increased because of the increased rod travel time before contacting the ball. From *In re Robertson*, "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Because Sudani does not teach or disclose the appropriate gap for reducing response times, nor indicate that such a thing is even possible or desirable, the Examiner's argument for applicant's invention being inherent in Sudani is negated. Applicants have innovatively

recognized that actuator response times can be improved by designing in appropriate pre-travel and using appropriate materials to minimize the effects of the impact on the ball and the rod (page 7, lines 18-19) without using a larger magnetic package and/or greater current. Applicants contend that this patentably distinguishes the instant invention over the prior art.

- b. Claims 11-19 depend directly or indirectly from claim 10 and therefore, for at least the reasons cited above, are believed to be in condition for allowance.
 - c. Re claim 20, the same arguments as found in 1(a) above apply. For at least these reasons, applicants contend that claim 20 is in condition for allowance.
 - d. Claims 21 and 25-29 depend from claim 20. For at least the reasons cited above in 1(c), applicants contend that claims 21 and 25-29 are in condition for allowance.
2. Claims 1, 3-9, 11, 13, 14, 22, and 24 are rejected under 35 U.S.C 103(a) as being unpatentable over Sudani.
- a. Regarding claim 1, the Examiner alleges that Sudani discloses the same valve as applicant's claim 1, and that it would have merely been a matter of discovering the optimum workable range for the distance between the rod and the ball. However, as discussed in point 1(a) above, applicant's invention is counter-intuitive with respect to the prior art, which has always sought to minimize the distance between the ball and the rod in the de-energized condition. Applicant's Claim 1 teaches a specific range of gap for a specific purpose that is neither taught nor suggested by Sudani. As spelled out in 1(a) above, applicant's invention is not inherent in Sudani's disclosure. One skilled in the art would not

have been motivated to find the optimum range for the gap because Sudani only teaches that the gap is necessary to close off the valve seat.

- b. Claims 3-9 depend from claim 1, therefore for at least the reasons cited above in point 2(a), applicants contend that claims 3-9 are in condition for allowance.
- c. Claims 22 and 24 depend from claim 20 and therefore, for at least the reasons cited in 1(c) above, applicants contend that claims 22 and 24 are in condition for allowance.

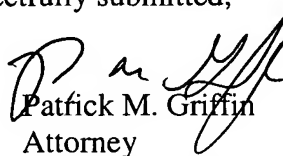
Applicants appreciate the Examiner's thorough examination of the instant application.

Applicants believe that the application is now in condition for allowance and look forward to a timely Notice of Allowance.

Although no fees are believed due, the Commissioner is authorized to charge our Deposit Account No. 50-0831 for any fees or credit the account for any overpayment.

Respectfully submitted,

By


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